



BRITISH ACADEMY OF AUDIOLOGY

Higher Training Scheme

Module Specification: Paediatric Habilitation

Version 1 FINAL

Purpose of this specification

This document makes explicit the knowledge and skills that are expected from an HTS candidate relevant to the scope of this module, and outlines additional elements needed to be completed prior to examination, such as secondments and case studies. All the prescribed elements of the module must be completed prior to application for the final examination.

It is important that this document is read together with the HTS regulations which clarifies requirements and gives further guidance.

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1.0 Scope of this Module

This module relates to M-level training to develop theoretical knowledge and practical skills to enable competency in paediatric habilitation for routine school aged cases, and to assist with those of pre-school age. Candidates are not expected to be competent in leading the habilitation of cases where there are other significant disabilities that would provide major challenges to assessment (e.g., serious visual impairment, severe motor impairment, significant learning disability or social-communicative disorder).

Cases should include new referrals and patients under review. It assumes the trainee is already competent in paediatric assessment techniques and has completed the HTS paediatric assessment module or equivalent before commencing.

Although this module is primarily concerned with habilitation it will be necessary for the trainee to consider and pursue indications for diagnostic assessment of patients as appropriate.

This module is classed as a large HTS module.

2.0 Minimum requirements for this module

This module requires candidates to have existing skills and knowledge equivalent to that of a BSc in Audiology, and HTS module in Paediatric Assessment 6 months +.

The detailed minimum requirements for completion, prior to examination are summarised in the following table. However, it should be noted this is a minimum requirement only, many candidates require more experience or training than this to enable them to meet the examination standard, and / or would benefit from a wider variety of learning opportunities such as placements with other professionals. The guidance notes should be followed, any experience which does not comply with this guidance cannot be counted towards the minimum requirements.

Element	Minimum
M-level credits	10 credits
Total supervised clinical sessions *	40
Tutorials	5
Secondments sessions*	10
Placement sessions (e.g. Teacher of the Deaf, SLT, social worker for the deaf, Educational Audiologist)	1 with a Teacher of the Deaf/Educational Audiologist (depending on local setup)
Part A – direct observations of clinical skills	N/A - all must be completed
Part B – Competencies - periodic appraisals of whole patient management <u>and</u> reflective diary.	5 appraisals in each category
Case Studies	2**

*A session is a minimum of 3.5 hours to include clinic preparation, seeing patients and any subsequent record and report writing.

**one from each exam type

3.0 Theoretical knowledge

This module assumes an underlying and up-to-date theoretical knowledge in line with requirements for the HTS modules in paediatric assessment 6 months +, on which this module builds.

For this module the candidate is expected to gain the following theoretical knowledge through academic study, tutorials, self-study and discussion:

1. In depth knowledge and to be able to contextualise childhood hearing loss from the socio-emotional, educational and medical perspective, to include:
 - a. knowledge of epidemiology, aetiology and risk factors
 - b. embryology and neuromaturation of hearing
 - c. genomics related to hearing loss and genetic counselling
 - d. the impact of childhood hearing loss on family and on child development
 - e. the impact of childhood hearing impairment on speech and language development
 - f. the impact of childhood hearing impairment on wider development
2. A detailed knowledge of the evidence relevant to benefit from early intervention for permanent hearing loss in children
3. Appraise policies and guidelines, position statements and best practice with regard to paediatric habilitation
4. Content of a full and relevant history (including medical, developmental, educational, and family aspects)
5. Understanding of the factors that contribute to successful paediatric hearing aid fitting and review child including content, plus accuracy, sensitivity, reliability and the scientific evidence underlying hearing aid fitting and review methods

6. In depth knowledge of various speech testing methods used in hearing aid assessment and verification, limitations and how results can be used to aid management
7. In depth knowledge of real ear verification of hearing aid fitting techniques used with children
8. In depth knowledge of advanced technological features of hearing aids and FM systems/assistive devices and apps
9. In depth knowledge of validated questionnaires used to assess listening and communications skills and abilities
10. Knowledge of the evidence base regarding frequency of hearing aid reviews for children
11. Knowledge of and ability to reflect upon the evidence and value of holistic, person/family-centred, and transdisciplinary care in paediatric habilitation including informed choice, joint working, shared decision making and safeguarding, as well as sources of support
12. In depth knowledge of and the ability to critically evaluate the evidence for management and support approaches for permanent childhood hearing impairment
13. Critically evaluate the principles of selection, prescription, verification, evaluation and monitoring of amplification in children, taking into account the needs of the individual patient
14. How to integrate relevant information to make a shared informed decision concerning the management of individual cases
15. An understanding of their own role and those of other professionals and agencies (e.g. Teachers of the deaf, Educational Audiologists, Social workers, ENT, Speech and Language Therapy) who contribute to the management and welfare of the child and their family / carers, how this can differ depending on local set up, local services and referral routes.

4.0 Learning outcomes

On completion of the module the candidate should integrate theoretical knowledge and practical skills to enable them to:

1. Prepare test facilities & equipment, to include daily calibration checks and room set up
2. Formulate review and management plans, liaising with the relevant professionals to co-ordinate assessments & care, as appropriate
3. Plan clinical approaches, using clinical reasoning strategies, evidence-based practice and person-centred approaches
4. Take a full and relevant history
5. Keep parent/carers and child fully informed during all aspects of the appointment, obtaining consent for procedures as appropriate
6. Carry out assessment / verification in a safe and effective manner adapting as required to ensure assessment / verification is appropriate for the developmental age of the child, and information gained is maximised within the time available, to include the use of:
 - a. Electroacoustic function tests
 - b. Real ear measures
 - c. Validated questionnaires
 - d. Speech testing
 - e. Subjective assessment
7. Show creativity, initiative and originality of thinking in tackling and solving practical problems
8. Collate relevant information, interpret and make an informed decision concerning the management of individual cases, to include hearing aid programming adjustments and onward referral to ENT or other appropriate professions if any red flags or significant hearing changes.
9. Develop individual management plans, ensuring that children and parents / carers are part of the decision making with use of person-centred care, to include transition plans at the appropriate stage to ensure a managed transition into adult services. Uses shared decision making to explore the range of treatment options available in a collaborative way.

10. Give advice on assistive listening devices, FM systems and apps, as appropriate, and ways these may be obtained, making referrals as needed
11. Communicate effectively with parents and children giving clear information on the plan for the session, hearing aid orientation, results, recommendations and management plan to children and families using appropriate language and communication strategies
12. Keep appropriate clinical records
13. Write reports on findings and recommendations suitable for the intended audience, to include a range of professionals and parents/carers, with the appropriate level of detail
14. Demonstrate the ability to, and articulate clearly through presentation and constructive discussion with colleagues:
 - a. Relate their own practice to a supporting knowledge base – including reference to evidence based and/or recognised good practice
 - b. Clearly justify any of their own clinical decisions made in the assessment or management of patients
 - c. Critically appraise the context of individual cases within national and local structures/processes for the management of hearing impairment
 - d. Critically evaluate and reflect on their own actions
 - e. Show independent thought through evaluation and presentation of alternative (and justified) approaches to existing local practice

In this module the above overarching learning outcomes will apply to the indicative content outlined in part A. These learning outcomes are used to assess competency in the part B appraisals and examination.

5.0 The range of procedures in which competence needs to demonstrated (Part A)

1. Preparation for appointment to include preparation of clinical facilities & equipment, to include real ear measurement systems and hearing aid test boxes, and room set up
2. Formulating a plan for the session taking into account the priorities for the individual child within the time available and attention span of the child, but adapting this as necessary dependent on findings
3. Independently and succinctly obtains a relevant case history in a logical but flexible progression to assess progress and concerns, showing sensitivity to any concerns and involving the child as appropriate, to include:
 - a. Applying person centred skills including asking for child and family perspectives and exploring the impact of the hearing loss on the child's life
 - b. Presence of any parental/child concerns
 - c. Presence of any concerns from the teacher of the deaf, educational audiologist or school
 - d. Presence of any concerns from other health professionals, such as speech and language therapy or paediatrics.
 - e. Hearing aid comfort
 - f. Hearing aid reliability / functioning
 - g. Earmould fit / feedback issues
 - h. Hearing aid use with reference to specific situations at home and at school
 - i. Hearing aid benefit with reference to specific situations at home and at school (this may be done using questionnaires such as PEACH)
 - j. Progress with hearing aid management
 - k. Progress with particular listening situations e.g. TV, telephone, doorbell etc to ascertain need for assistive listening devices
 - l. Progress at school, acoustic environment at school
 - m. Support at school, do they have any additional support, is an FM system used or being considered
 - n. Other recent otological history – ear infections etc.
4. Paediatric Impression taking, demonstrating:

- a. Appropriate adherence to BSA Recommended Procedure.
 - b. Clear instructions/explanation to parents and child.
 - c. Appropriate modifications of techniques for child e.g. correct choice of tamp size/modifications to tamp.
5. Paediatric Hearing Aid Selection and programming, demonstrating:
- a. Appropriate choice of hearing aid and features to match needs of child.
 - b. Ability to access required features of hearing aid software.
 - c. Manipulation of hearing aid output as required.
 - d. Awareness of compression characteristics.
 - e. Choice of prescription formula.
 - f. Programming and saving changes to hearing aid.
6. New hearing aid fitting demonstrating:
- a. Introducing the hearing aids to the child and family in a considerate manner
 - b. Hearing aid orientation carried out with parent/child ensuring full understanding of information to include advice on use.
 - c. Select and program appropriate hearing aids to child taking age, development and amplification needs into account
7. Real Ear Measures, demonstrating:
- a. Use of BSA recommended procedure.
 - b. Application of appropriate modifications of technique for children (e.g. probe tube insertion depth).
 - c. Differences between REM and RECD and when appropriate to use.
 - d. Modifications for open fit devices.
 - e. Understanding of Speech Intelligibility Index (SII).
8. Simulated Real Ear Measures, demonstrating:
- a. Use of BSA recommended procedure.
 - b. Measurement of RECD including appropriate probe tube placement and insertion depths.
 - c. Identification of RECD anomalies and actions to address these.
 - d. Coupler verification measures.
 - e. Understanding of Speech Intelligibility Index (SII).
9. Electro-acoustic Testing of Hearing Aids, demonstrating:
- a. Appropriate choice of electro acoustic test and understanding of its purpose. Use of appropriate coupler.
 - b. Correct positioning of hearing aid in test box.
 - c. Accurate recording of hearing aid response.
 - d. Correct interpretation of results.
10. Subjective Evaluation Measures
- a. Interpretation of reports and age appropriate questionnaires received from education and the multidisciplinary team.
 - b. Administer developmentally age appropriate questionnaires as appropriate and interpret results in clinic. E.g. PEACH, LittleEars.
 - c. Be able to explain purpose to parents and utilise results in conjunction with other measures to evaluate the hearing aid fitting.
 - d. Evaluation of hearing aid in situ to ensure comfort and check tolerance to loud sounds.
11. Objective Evaluation Measures
- a. Use of datalogging and discussions with parents, including GDPR implications.
 - b. SII interpretation and normative ranges.
 - c. Use of aided speech discrimination testing using age appropriate materials and understanding of results.
12. Ability to make necessary adjustments based on both subjective and objective measures.
13. Debrief to child / parents / carers to include:

- a. Explaining findings, implications and proposed management using appropriate language
 - b. Responding to questions from the child, parents/carers in an appropriate way, showing sensitivity and rephrasing /re-explaining as necessary to ensure understanding
 - c. Backing up information given with information materials for parent/child where possible
 - d. Using appropriate methods to break difficult news to parents /carers (using role play if situation does not arise in practice)
 - e. Involving child in debrief, as appropriate
14. Keep appropriate clinical records: record findings and interventions delivered clearly, in a consistent format, all of which must be dated and named.
 15. Write reports on assessment sessions, recommended treatment plans and / or outcome of treatment as required, suitable for the intended audience, to include a range of professionals.

6.0 Types of cases for periodic appraisals of whole patient management (part B)

The specified appointment types / patient categories for this module are:

- Leading new hearing aid fittings (School age and upwards)
- Leading hearing aid reviews (Primary age 4-11 years)
- Leading hearing aid reviews (Secondary age 11-16 years)
- Assist in hearing aid fittings (Pre-school or SEND)
- Assist in hearing aid reviews (Pre-school or SEND)
- Leading transition hearing aid reviews (14+ years*)

*NB age of exact transition to adult services will vary across sites so this age is a guide but the transition hearing aid review should include planning for the transition.

The type and or/age of the patient module should be recorded for each part B appraisal.

Part B assessments will be assessed against the same criteria as the examination marking guidance.

7.0 Examination details

Examination will take place over a maximum of a one-day period at the candidates training centre, assessing the candidate against the learning outcomes for this module. This examination has two components:

1. Practical assessment of clinical skills. This will involve the direct observation of the candidate in two appointments, as outlined below, followed by a case viva after each case, plus a written report on one of these cases. The report on any new case should include the following discrete sections: history, summary of findings, interventions delivered and individual management plan.
2. General viva voce, to assess the level and scope of theoretical knowledge underpinning the learning outcomes. This may explore broader issues prompted by the practical exams, and the content of this module.

For the practical assessment, candidates will be examined on the assessment of two children, one primary aged (4-11 years), one secondary aged (11-16 years). If the patients use radio aids or assistive devices, they will be expected to review these in line with local arrangements.

This module assumes the candidate is competent in paediatric assessment. Should any significant concerns arise regarding their competency in paediatric assessment during the examination, this can be explored by the examiners in the general viva, if time permits after all necessary questions have been asked for the habilitation module. If significant concerns remain, or time limits do not enable this to be explored, the results for this module would be withheld until the HTS Committee were satisfied any issues had been addressed.

8.0 Examination marking guidance

Learning outcome	Learning outcome number	0 Does not meet examination standard	1 Meets examination standard	2 Exceeds examination standard
Prepare test facilities & equipment, to include daily calibration checks and room set up	1	Omits or incorrectly performs calibration checks and equipment setup, OR is unable to identify the consequences of proceeding with incorrectly calibrated or faulty equipment, or room set up inappropriate for the session.	Performs calibration checks and equipment setup correctly, and is able to identify the main consequences of proceeding with incorrectly calibrated or faulty equipment, and the room is set up appropriately for the session.	Performs calibration checks and equipment setup skilfully, and is able to identify detailed consequences of proceeding with incorrectly calibrated or faulty equipment, and room is set up with a high attention to detail and patient needs.
Formulate review and management plans, liaising with the relevant professionals to co-ordinate assessments & care, as appropriate Plan clinical approaches, using clinical reasoning strategies, evidence-based practice and person-centred care	2,3	Does not select appropriate or person-specific assessment or management plans, OR is unable to explain the reasoning behind the approach taken, OR does not show sufficient knowledge of the current research evidence and clinical guidance, OR does not liaise with relevant professionals as appropriate.	Identifies appropriate assessment and management plans, and modifies these to meet individual needs. Is able to broadly explain the reasoning underpinning the approach taken using current research evidence and clinical guidance. Liaises with relevant professionals as appropriate.	Creates an assessment or management plan which is highly tailored to the person's specific needs and consistent with current clinical guidance, highly person-centred approaches and evidence-based practice and liaises with the relevant professionals as appropriate.
Take a full and relevant history	4	Obtains insufficient information about the child's progress, difficulties and needs, health, and listening environments.	Uses effective questioning and listening to elicit sufficient information about the child's progress, difficulties and needs, health, and listening environments.	Uses skilful questioning, and active listening to elicit a comprehensive picture of the child's progress, difficulties and needs, health, and listening environments.
Keep parent/carers and patients fully informed during all aspects of the appointment, obtaining consent for procedures as appropriate. Communicate effectively with parents and children giving clear information on the plan for the session, hearing aid orientation, results, recommendations and management plan to children and families using appropriate language and communication strategies.	5,11	Communicates information to parents / carers and children in a way that is generally unclear or contains irrelevant information OR does not obtain consent.	Communicates relevant information about testing and management options to parents / carers and children clearly and in a way that broadly meets their needs. Obtains consent.	Effectively and clearly communicates relevant information about testing and management options to parents / carers and children in a way that is highly tailored to their needs. Obtains consent.

Carry out assessment / verification in a safe and effective manner adapting as required to ensure assessment / verification is appropriate for the developmental age of the child, and information gained is maximised within the time available	6	Assessment / verification is unsafe, OR does not follow local or national guidance (or without evidence-based justifications as to why not), OR is not completed within an appropriate time, OR does not adapt the testing process to maximise data collection.	Performs assessment / verification safely, according to local and national guidance and within the appropriate appointment time allocation. Adapts the testing process where appropriate to ensure the most valuable data is prioritised.	Performs assessment / verification skilfully, according to local and national guidance and within the appropriate appointment time allocation. Adapts the testing process where appropriate to ensure the most valuable data is prioritised.
Show creativity, initiative and originality of thinking in tackling and solving practical problems	7	Does not show creativity, initiative and originality of thinking in tackling and solving practical problems if they arise during the session.	Shows creativity, initiative and originality of thinking in tackling and solving practical problems if they arise during the session.	Shows a high level of creativity, initiative and originality of thinking in tackling and solving practical problems if they arise during the session.
Collate relevant information, interpret and make an informed decision concerning the management of individual cases, to include hearing aid programming adjustments and onward referral to ENT or other appropriate professions if any red flags or significant hearing changes Develop individual management plans, ensuring that children and parents / carers are part of the decision making with use of person-centred care, to include transition plans at the appropriate stage to ensure a managed transition into adult services. Uses shared decision making to explore the range of treatment options available in a collaborative way.	8,9	Does not identify an appropriate range of management options for the child or does not ensure parents / carers/child are part of the decision-making process OR does not make the appropriate hearing aid adjustments OR does not identify the need for or make appropriate referrals if required OR does not develop an individual's management plan OR does not use shared decision making and collaboration.	Integrates the details from the history, test results, research evidence, current clinical guidance and patient preferences to identify a range of appropriate management options for the patient, including onward referral AND ensures the parents / carers and children are part of the decision making process AND makes the appropriate hearing aid adjustments AND does identify the need for and make appropriate referrals if required AND develops an individual management plan AND does this collaboratively.	Integrates the details from the history, test results, research evidence, current clinical guidance to identify the full range of appropriate management options for the patient, (including onward referral) and their likely benefits and limitations, and fully involves the parents / carers and children in decision making AND skilfully makes the appropriate hearing aid adjustments AND develops a highly personalised individual management plan with clear collaboration.
Give advice on assistive listening devices, FM systems and apps, as appropriate, and ways these may be obtained, making referrals as needed	10	Does not recognise need to give advice OR does not give advice as required OR does not give accurate advice does not explain how these may be obtained OR does not make appropriate referrals if appropriate.	Recognises the need to give advice and gives accurate advice to include how these may be obtained and refers as appropriate.	Proactively gives advice regarding a range of devices / systems / apps to ensure access to speech and environmental sounds, tailored to the individual child and family, to include how these may be obtained and refers as appropriate.

Keep appropriate clinical records	12	Clinical record omits key information OR is omitted from the clinical record system.	Provides a clear summary of the clinical episode, which is stored in an appropriate clinical record system.	Provides clear and detailed information about the clinical episode, which is stored in an appropriate clinical record system.
Write reports on test results and recommendations suitable for the intended audience, to include a range of professionals and parents/carers	13	Report omits key information, is disorganised or written using unprofessional terminology.	Report provides a clear summary of the clinical episode which is logically structured, and written using professional terminology.	Report provides clear and detailed information about the clinical episode which is highly organised, concise, and well written using professional but accessible terminology.

Continued overleaf.....

<p>Demonstrate the ability to, and articulate clearly through presentation and constructive discussion with colleagues:</p> <ul style="list-style-type: none"> • Relate their own practice to a supporting knowledge base – including reference to evidence based and/or recognised good practice • Clearly justify <u>any</u> of their own clinical decisions made in the assessment or management of patients • Critically appraise the context of individual assessments within national and local structures/processes for paediatric habilitation • Critically evaluate and reflect on their own actions • Show independent thought through evaluation and presentation of alternative (and justified) approaches to existing local practice 	<p>14</p>	<p>Limited ability to reflect on and critically evaluate own clinical practice, or explain clinical reasoning. Demonstrates limited knowledge of subjects discussed. OR Does not demonstrate a good working knowledge or relevant national guidelines or policies, or evidence base, or calibration aspects OR Unable to interpret or make informed decisions concerning the needs or management of individual cases OR Does not demonstrate a good working knowledge or local structures, or offer critical comment OR Does not demonstrate critical evaluation or reflection skills of own practice and others, or not aware of the limits of own skills or knowledge, or when to seek advice. OR Does not show independent thought during constructive discussion</p>	<p>Able to reflect on and critically evaluate own clinical practice, and explain clinical reasoning. Demonstrates comprehensive knowledge of subjects discussed. AND Demonstrates a good working knowledge of relevant national guidelines and policies, relevant evidence base, has a good working knowledge of the relevant calibration aspects of any equipment used AND Demonstrates the ability to interpret and make informed decisions concerning the needs and management of individual cases AND Demonstrates a good working knowledge of the local structures (i.e. care pathways) for processing patients and offer critical comment AND Demonstrates critical evaluation and reflection skills of own practice and others, and awareness of the limits of own skills and knowledge and when to seek advice Shows independent thought during constructive discussion</p>	<p>Able to provide insightful reflection and critical evaluation of own clinical practice, and explain clinical reasoning with reference to research evidence and clinical practice. AND Demonstrates wider knowledge of subjects discussed. AND Demonstrates a high level of working knowledge of relevant national guidelines and policies, relevant evidence base, has a high level of working knowledge of the relevant calibration aspects of any equipment used AND Demonstrates the ability to skilfully interpret and make informed decisions concerning the needs and management of individual cases AND Demonstrates a high level of working knowledge of the local structures (i.e. care pathways) for processing patients and offer critical comment AND Demonstrates a high level of critical evaluation and reflection skills of own practice and others, and high awareness of the limits of own skills and knowledge and when to seek advice AND Shows a high level of independent thought during constructive discussion</p>
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Candidates must achieve a final rating of 1 or 2 in every section of the examination to achieve a pass.